IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (**Currently Amended**) A method of calibrating an imaging system comprising:

obtaining a sequence of images;

collecting calibration data from the sequence of images;

determining positioning and orthogonality errors from the calibration data; and

creating a solution model for adjusting the imaging system based on positioning and orthogonality data.

2. (Previously presented) The method of Claim 1, further comprising modifying the position of an image area based on the solution model.

3. (Original) The method of Claim 1, further comprising modifying the positioning of a mechanical system to compensate for errors based on the solution model.

4. (Original) The method of Claim 1, further comprising determining calibration data based on stepping data.

5. (Original) The method of Claim 1, further comprising determining calibration data based on slide data using a reference slide.

6. (Original) The method of Claim 1, further comprising determining calibration data based on sub-spot data.

7. (Original) The method of Claim 1, further comprising determining calibration data based on absolute data.

8. (Original) A method of obtaining an image of a plurality of specimens comprising:

determining calibration data;

creating adjustment parameters based on the calibration data;

applying the adjustment parameters to position a first portion of the plurality of specimens within a scan area;

obtaining an image of the first portion of the plurality of specimens;

applying the adjustment parameters to position a second portion of the plurality of specimens within a scan area;

obtaining an image of the second portion of the plurality of specimens; and

combining the image of the first portion and the image of the second portion to create the image of the plurality of specimens.

9. (Original) The method of Claim 8, further comprising:

obtaining an image of a plurality of portions of the plurality of specimens, wherein a location of each of the plurality of portions is adjusted based on the adjustment parameters; and

stitching together each of the images of the plurality of portions of the plurality of specimens.

10. (Original) The method of Claim 8, further comprising determining calibration data based on stepping data.

11. (Original) The method of Claim 8, further comprising determining calibration data based on slide data using a reference slide.

12. (Original) The method of Claim 8, further comprising determining calibration data based on sub-spot data.

13. (Original) The method of Claim 8, further comprising determining calibration data based on absolute data.

14. (**Currently Amended**) A system for scanning a plurality of specimens arranged within a scan area comprising:

a staging area which moves relative to a camera, the camera being operative to detect images;

a processor which collects positional and orthogonality calibration data from the staging area, wherein the processor creates an adjustment algorithm to modify movement of the staging area to compensate for the calibration data.

15. (Original) The system of Claim 14, wherein the calibration data is based on a bright spot within the scan area.

16. (Original) The system of Claim 14, wherein the staging area is positioned to collect a plurality of images, each of the plurality of images comprising a portion of the total desired image.

17. (Original) The system of Claim 16, wherein each of the plurality of images is assembled to form the total desired image.

18. (Original) The system of Claim 14, wherein the calibration data is obtained without the use of a reference slide.

19. (Original) The system of Claim 14, wherein the calibration data is obtained with the use of a reference slide.

20. (**New**) The method of Claim 1 wherein the sequence of images is captured by a camera.